

ABSTRACT OF THE DISCLOSURE

A multiple wavelength surface-emitting laser device equipped with a substrate and a plurality of surface-emitting lasers formed on the substrate by a continuous manufacturing process is provided. Each surface-emitting laser includes a bottom reflection layer on the substrate, that is doped with impurities of one type and composed of alternating semiconductor material layers having different refractive indexes; an active layer that is formed on the bottom reflection layer; an intermediate layer that is doped with impurities of the other type on the active layer; a top electrode that is formed on the intermediate layer to have a window through which light is emitted; and a dielectric reflection layer where dielectric materials with different refractive indexes are alternately layered on the intermediate layer and/or the top electrode to a thickness suitable for a desired resonance wavelength, and the resonance wavelength is controlled by adjusting the thickness of the dielectric reflection layer.

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